

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 06666-156001	Application No. 10/676,377
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR 1.98(b))		Applicant Ulrich Neumann et al.	
		Filing Date September 30, 2003	Group Art Unit 2621

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
EW	AA	6,078,701	06/20/2000	Hsu et al.			
EW	AB	6,269,175	07/31/2001	Hanna et al.			
EW	AC	6,430,304	08/06/2002	Hanna et al.			
EW	AD	6,490,364	12/03/2002	Hanna et al.			
EW	AE	6,512,857	01/28/2003	Hsu et al.			
EW	AF	6,522,787	02/18/2003	Kumar et al.			
EW	AG	6,571,024	05/27/2003	Sawhney et al.			
EW	AH	6,597,818	07/22/2003	Kumar et al.			
EW	AI	2001/0019621	09/06/2001	Hanna et al.			
EW	AJ	2001/0036307	11/01/2001	Hanna et al.			
EW	AK	2001/0038718	11/08/2001	Kumar et al.			
EW	AL	2001/0043738	11/22/2001	Sawhney et al.			
EW	AM	2002/0061131	05/23/2002	Sawhney et al.			
EW	AN	2003/0014224	01/16/2003	Guo et al.			
EW	AO	2003/0080978	05/01/2003	Navab et al.			
EW	AP	2003/0085992	05/08/2003	Arpa et al.			

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AQ							
	AR							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
EW	AS	Bolan Jiang et al., "A Robust Hybrid Tracking System for Outdoor Augmented Reality", Integrated Media Systems Center, University of Southern California
EW	AT	Joseph R. Spann et al., "Photogrammetry Using 3D Graphics and Projective Textures", IAPRS, Vol. XXXIII, Amsterdam, 2000
EW	AU	Brett Hall et al., "A Novel Graphical Interface and Context Aware Map for Incident Detection and Monitoring", 9th World Congress on Intelligent Transport Systems, October 2002

Examiner Signature <i>[Signature]</i>	Date Considered 4/28/05
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EW	AV	Ulrich Neumann et al., "Visualizing Reality in an Augmented Virtual Environment", Integrated Media Systems Center, University of Southern California
EW	AW	R. Azuma, "A Survey of Augmented Reality", Presence: Teleoperators and Virtual Environments, Vol. 6, No. 4, pp. 355-385, 1997
EW	AX	P.E. Debevec, C.J. Taylor and J. Malik, "Modeling and Rendering Architecture from Photograph: A Hybrid Geometry-and-Image-based Approach", SIGGRAPH' 96, pp. 11-20, 1996
EW	AY	E. Foxlin, "Inertial Head-Tracker Sensor Fusion by a Complementary Separate-Bias Kalman Filter", IEEE Virtual Reality Annual International Symposium, pp. 184-194, 1996
EW	AZ	C. Fruh and A. Zakhor, "3D Model Generation for Cites Using Aerial Photographs and Ground Level Laser Scans", IEEE Conference on Computer Vision and Pattern Recognition, 2001
EW	AAA	R.C. Gonzales, R.E. Woods, Digital Image Processing. Addison-Wesley, 2 nd edition (September 1993), pp. 41-44
EW	ABB	N. Greene, M. Kass, and G. Miller, Hierarchical Z-Buffer Visibility. SIGGRAPH' 93, pp. 231-238, 1993
EW	ACC	A. Gruen and R. Nevatia (editors), "Special Issue on Automatic Building Extraction from Aerial Images", Computer Vision and Image Understanding, November 1998
EW	ADD	P. Haeberli and M. Segal, "Texture mapping as a fundamental drawing primitive", in M. F. Cohen, C. Puech, and F. Sillion, editors, Fourth Eurographics Workshop on Rendering, pp. 259-266, 1993
EW	AEE	M. Harville, G. Gordon, and J. Woodfill, "Foreground Segmentation using Adaptive Mixture Models in Color and Depth", Proceedings of the IEEE Workshop on Detection and Recognition of Events in Video, July 2001
EW	AFF	W. Heidrich and H.P. Seidel, "Realistic, Hardware-accelerated Shading and Lighting", SIGGRAPH' 99, 1999
EW	AGG	Y. Hsieh, "SiteCity: A semi-automated Site Modeling System", IEEE Conference on Computer Vision and Pattern Recognition, pp. 499-506, 1996
EW	AHH	R. Jain, R. Kasturi, B.G. Schunck, Machine Vision, McGraw-Hill International Edition, 1995, pp 76
EW	AII	B. Jiang, U. Neumann, "Extendible Tracking by Line Auto-Calibration," International Symposium on Augmented Reality, pp. 97-103, New York, October 2001
EW	AJJ	T. Kanade, R. Collins, A. Lipton, P. Burt and L. Wixson, "Advances in cooperative multi-sensor video surveillance", Proc. Of DARPA Image Understanding Workshop, Vol. 1 pp. 3-24, 1998
EW	AKK	T. Kanade, P. Rander, S. Vedula, and H. Saito, Mixed Reality, Merging Real and Virtual Worlds, Yuichi Ohta, Hideyuki Tamura, ed., Springer-Verlag, 1999, pp. 41-57
EW	ALL	W. Koller and J. Malik, "Robust multiple car tracking with occlusion reasoning" In Proc. Third European Conference on Computer Vision, May 2-6, pp. 189-196, 1994
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EW	APP	U. Neumann and S. You, "Natural Feature Tracking for Augmented-Reality", IEEE Transactions on Multimedia. Vol. 1, No. 1, pp. 53-64, March 1999

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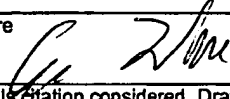
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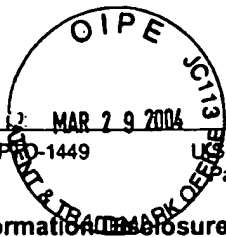
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EW	ARR	R. Remagnino, A. Baumberg, T. Grove, D. Hogg, T. Tan, A. Worrall, and K. Baker, "An integrated traffic and pedestrian model-based vision System". Proceedings of BMVC97, Vol. 2, pp. 380-389, 8, September, 1997
EW	ASS	W. Ribarsky, T. Wasilewski, and N. Faust, "From Urban Terrain Models to Visible Cities", IEEE Computer Graphics & Applications, Vol. 22, No. 4, 2002
EW	ATT	C. Ridder, O. Munklet, and H. Kirchner, "Adaptive background estimation and foreground detection using Kalman-filtering". ICRAM'95, pp. 193-199, 1995
EW	AUU	M. Segal, C. Korobkin, R. Van Widenfelt, J. Foran, and P. Haeberli, "Fast shadows and lighting effects using texture mapping", SIGGRAPH '92, pp. 249-252, 1992
EW	AVV	J. R. Spann and K. S. Kaufman, "Photogrammetry using 3D graphics and projective textures", IAPRS 2000, Vol. 33
EW	AWW	C. Stauffer, W.E.L. Grimson, "Adaptive background mixture models for real-time tracking" CVPR 99, Vol. 2, pp. 246-252, June 1999
EW	AXX	H. Tao, H. S. Sawheny, R. Kumar, "Dynamic layer representation with applications to tracking", Proc. IEEE conf. on Computer Vision and Pattern Recognition, CVPR 2000, Vol. 2, pp. 134-141, June 2000
EW	AYY	S. J. Teller and C. H. Seouin, "Visibility preprocessing for interactive walkthroughs", SIGGRAPH '91, pp. 61-69, 1991
EW	AZZ	S. You, J. Hu, U. Neumann, and P. Fox, "Urban Site Modeling From LiDAR", Second International Workshop on Computer Graphics and Geometric Modeling CGGM'2002, pp. 579-588, Montreal, CANADA, 2002
EW	AAAA	S. You, U. Neumann, and R. Azuma, "Orientation Tracking for Outdoor Augmented Reality Registration", IEEE Computer Graphics & Applications, Vol. 19, No. 6, pp. 36-42, Nov. 1999
EW	ABBB	Z. Zhang, "A flexible new technique for camera calibration", IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 22, No. 11, pp. 1330-1334, 2000
EW	ACCC	Ulrich Neumann et al., "Augmented Virtual Environments (AVE): Dynamic Fusion of Imagery and 3D Models", Integrated Media Systems Center, University of Southern California
EW	ADDD	P. E. Debevec, Y. Yu and G. D. Borshukov, "Efficient View-Dependent Image-Based Rendering with Projective Texture-Mapping", 9th Eurographics Workshop on Rendering, pp. 105-116, 1998
EW	AEEE	D. Liebowitz, A. Criminisi and A. Zisserman, "Creating Architectural Modeling From Images", EUROGRAPHIC'99, pp. 39-50, 1999
EW	AFFF	Foley, J. D., Van Dam, A., Feiner, S. K. and Hughes, J. F., "Computer Graphics: principles and practice", Addison-Wesley, Reading, Massachusetts, 1990
EW	AGGG	M. J. Zyda and D. R. Pratt, "NPSNET: A Multilayer 3D Virtual Environment Over the Internet", Proceedings of the ACM- 1995 Symposium on Interactive 3D Graphics, 9-12 April 1995, Monterey, California
EW	AHHH	Cruz-Neira, C., Sandin, D. J. and DeFanti, T. A., "Surround-Screen Projection-Based Virtual Reality: The Design and Implementation of the CAVE" SIGGRAPH'93, 1993
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EW	AJJJ	Mark, W. R., Mcmillan, L. and Bishop, G. Post-rendering 3D warping. ACM Symposium on Interactive 3D Graphics, pp. 7-16, 1997
EW	AKKK	Zhao, B. and Trinder, J., "Integrated Approach Based Automatic Building Extraction", 19 th ISPRS Congress, Book 3B, pp. 1026-1032, Amsterdam
EW	ALLL	Seresht, M. And Azizi, A., "Automatic Building Recognition from Digital Aerial Images", 19 th ISPRS Congress, Book 3B, pp. 792-798, Amsterdam
EW	AMMM	Coorg, S. and S. Teller, "Extracting Textured Vertical Facades from Controlled Close-Range Imagery", CVPR, 1999, pp. 625-632
EW	ANNN	A. Elaskher, J. Bethel, "Building Extraction Using Lidar Data", ASORS-ACSM Annual Conference and FIG XXII Congress, April 22-26, 2002
EW	AOOO	Haala, N., C. Brenner, "Generation of 3D city models from airborne laser scanning data", the 3 rd EARSEL Workshop on LIDAR Remote Sensing on Land and Sea, Tallinn, 105-112, 1997
EW	APPP	Suya Y., Ulrich N., Automatic Object Modeling for 3D virtual Environment, Proceedings of NMBIA, pp. 21-26, 1998
EW	AQQQ	William, H., Saul, A., William, T., and Brian, P., "Numerical Recipes in C", Cambridge University Press, 1992
EW	ARRR	http://www.cybercity.tv

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	AB						
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	AI						
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Foreign Patent Documents or Published Foreign Patent Applications

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							Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
EW	AQ	A. Brogni et al., "Technological Approach for Cultural Heritage: Augmented Reality", Proceedings of the 1999 IEEE, International Workshop on Robot and Human Interaction, Sept. 1999
EW	AR	P.D. Crouser et al., "Unattenuated tracer particle extraction through time-averaged, background image subtraction with outlier rejection", Experiments in Fluids 22 (1997)- XP-000727469
EW	AS	Carla Nardinocchi et al., "Building extraction from LIDAR data", IEEE/ISPRS Joint Workshop on Remote Sensing and Data Fusion over Urban Areas, 2001, XP-002271137
	AT	

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